REQUEST FOR QUALIFICATIONS
COMMISSIONING AGENT SERVICES
NEW AUGUSTA COURT FACILITY

The Maine Judicial Branch wishes to procure commissioning agent services for a new state-of-the-art courthouse facility for Superior and District Courts in Augusta, Maine. The facility is expected to be approximately 130,000 square feet in size and between four and six stories in height. It will accommodate jury, non-jury, and family matter courtrooms, provide Court Clerk and other office spaces, and secure parking for judges and critical staff.

The Project Architect is PDT Architects, Portland, ME. Mechanical, Electrical and Plumbing Engineering Consultants are Allied Engineering, Inc., Portland, ME. The Construction Manager is Consigli Construction, Inc., Portland, ME.

Construction is scheduled to begin in summer 2012. Substantial Completion is anticipated by mid 2015. The fixed total project allocation is $57,000,000. Construction Cost is estimated at approximately $40,000,000. Schematic Design has begun.

The Maine Judicial Branch is seeking commissioning agent services to ensure that mechanical, electrical, and building envelope systems are complete and functioning properly upon occupancy, and that the Owner's staff has adequate system documentation and training.

Evaluation criteria for qualifications are based on:

- Proposed approach to the Project
- Past experience in performing commissioning agent services for similar projects
- Experience of the staff to perform the services required by the Project

Fees shall not be included in the response to this RFQ. Fees shall be negotiated with the firm determined by the Selection Committee to be the most qualified for these services.

The Maine Judicial Branch and the Bureau of General Services intend to invite three companies to interview with the Selection Committee.

Interested parties should submit six copies of their qualifications package on or before 2:00 p.m. Tuesday, February 7, 2012 to:

Tammy Harrington
Planning, Design and Construction Division
Bureau of General Services
4th Floor, Cross State Office Building, 111 Sewall Street
77 State House Station
Augusta, Maine 04333

PURPOSE: Support the Owner, design team, construction team, and operations team in assuring that the project's design intent is properly implemented from design through operation. To reach this goal, it is necessary for the commissioning process to establish and document the Owner's criteria for system function, performance, and maintainability, and to verify and document compliance with these criteria throughout design, construction, start-up, and the initial period of operation. The Commissioning Agent (CxA) should be involved throughout the project from design development through the warranty phase. The primary role of the CxA during the overall design phase shall be to develop detailed commissioning specifications and review the design to ensure it meets the Owner's objectives. During construction, the CxA shall develop and coordinate the execution of a testing plan, which includes observing and documenting all mechanical and electrical systems' performance to ensure that systems are functioning in accordance with the Owner's objectives and the contract documents, and to commission the building envelope. The CxA shall not be responsible for design or general construction scheduling, cost estimating, or construction management, but may assist with problem-solving or resolving non-conformance issues or deficiencies.

CRITERIA:

- The Commissioning Agent (CxA) shall provide commissioning services to the Owner. The CxA must maintain certification credentials from either the Building Commissioning Association, AABC Commissioning Group, or an equivalent organization.
- The CxA shall provide design certification and construction certification as required with Fundamental LEED Commissioning. Generally, ASHRAE guidelines shall apply to the Commissioning process. The CxA shall certify that the final contract documents reflect the operational performance requirements identified in the design certification and develop a commissioning plan.
- The CxA shall attend regular meetings with the Owner's Representative to review construction progress, pre-functional test requirements and witness acceptance test results.
- The CxA shall verify test results and complete all documentation required by construction certification. The CxA is responsible for reviewing the final commissioning report with Owner's Representative and verifying the operations certification is completed.

SCOPE OF WORK: The CxA shall be responsible for carrying out the following tasks. The CxA is free to suggest changes and improvements to the following task list, but for this project it is assumed that these tasks shall be completed:

Design Phase

- Develop a design-phase commissioning plan.
- Attend commissioning meetings as needed with project manager and design team.
- Review the Owner Objectives documentation (design intent) for clarity and completeness.
- Develop the written Owner Objectives for the following features: mechanical, electrical, lighting, energy consumption, commissioning, indoor environmental quality, building envelope.
- Coordinate the commissioning work during design.
- Perform focused reviews of the design drawings and specifications at various stages of development (during design development and contract document phases). Review shall encompass MEP and Architectural Envelope systems.
- Assist in the review of the development and updating of the Design Record documentation by design team members (Owner Objectives, Design Narrative; Design Basis).
- Develop a draft construction phase commissioning plan using an Owner-approved outline.

- Develop full commissioning specifications for all commissioned equipment. Coordinate with and integrate into the specifications of the architect and engineers.
- The commissioning specification shall include a detailed description of the responsibilities of all parties, details of the commissioning process; reporting and documentation requirements, including formats; alerts to coordination issues, deficiency resolution; construction checklist and startup requirements; the functional testing process; specific functional test requirements, including testing conditions and acceptance criteria for each piece of equipment being commissioned.
- Coordinate a controls integration meeting where the electrical and mechanical engineers and the CxA discuss integration issues between equipment, systems and disciplines to ensure that integration issues and responsibilities are clearly described in the specifications.
- Review equipment warranties to ensure that the Owner's responsibilities are clearly defined.

Construction Phase

- Coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.
- Conduct a Commissioning Kick-off Meeting to review the commissioning plan.
- Coordinate the commissioning work and, with the construction manager (CM), ensure that commissioning activities are being scheduled into the master schedule.
- Revise, as necessary, the construction phase commissioning plan developed during design, including scope and schedule.
- Plan and conduct commissioning meetings as needed and distribute minutes.
- Request and review additional information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures. Before startup, gather and review the current control sequences and interlocks and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
- Review and approve normal Contractor submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the A/E reviews.
- Review requests for information and change orders for impact on commissioning and owner's objectives.
- Review coordination drawings to ensure that trades are making a reasonable effort to coordinate.
- Write and distribute construction checklists for commissioned equipment.
- Develop an enhanced start-up and initial systems checkout plan with contractors for selected equipment.
- Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
- Attend pre-installation conferences for air barrier, window, curtain wall, storefront and roof system installation. Perform on-site review of integrated wall system mock ups, on-site inspection of glazing, flashing, roofing, air barrier, insulation, and sheathing systems at 20%, 70% and 90% installation phases, and document envelope integrity via thermal scanning with follow-up report.

- Perform field measurement of air leakage and water penetration through installed exterior windows, doors, curtain wall and storefront systems and skylights per ASTM standards at representative locations.
- Witness HVAC piping pressure test and flushing, sufficient to be confident that proper procedures were followed. Include testing documentation in the Commissioning Record.
- Witness any ductwork testing and cleaning sufficient to be confident that proper procedures were followed. Include documentation in the Commissioning Record.
- Document construction checklist completion by reviewing completed construction checklists and by selected site observation.
- Document systems startup by reviewing start-up reports and by selected site observation.
- Approve air and water systems balancing by spot testing and by reviewing completed reports and by selected site observation.
- With necessary assistance and review from installing contractors, write the functional performance test procedures for equipment and systems. This will include manual functional testing, energy management control system trending and may include stand-alone data-logger monitoring. Submit to CM for review and approval if required.
- Analyze functional performance trend logs and monitoring data to verify performance.
- Coordinate, witness and document manual functional performance tests performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved. The functional testing shall include operating the system and components through each of the written sequences of operation, and other significant modes and sequences, including startup, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment. Sensors and actuators shall be calibrated during construction check listing by the installing contractors, and spot-checked by the commissioning provider during functional testing.

  Tests on respective HVAC equipment shall be executed, if possible, during both the heating and cooling season. However, some overwriting of control values to simulate conditions shall be allowed. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the commissioning provider and the Owner.
- Prepare test plans for, assist with execution of, and document tests of commissioned equipment overseen by regulatory authorities and ensure that such tests meet the testing rigor desired by the Owner.
- Maintain a master issues log and a separate record of functional testing. Report all issues as they occur directly to the CM. Provide directly to the CM written progress reports and test results with recommended actions.
- Review equipment warranties to ensure that the Owner's responsibilities are clearly defined.
- Oversee and approve the training of the Owner's operating personnel.
- Review and approve the preparation of the O&M manuals for commissioned equipment.
- Compile a Commissioning Record, which shall include:
    - A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the commissioning provider regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following areas:
        - Equipment meeting the equipment specifications,

        - Equipment installation,
        - Functional performance and efficiency,
        - Equipment documentation, and
        - Operator training.
    - All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.
    - Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start-up reports, functional tests, and trend log analysis.
- Compile a Systems Concepts and Operations Manual that consists of the following: Owner Objectives (by owner); Design Narrative and Basis of Design (by designer); Performance metrics, if completed during design; space and use descriptions, single line drawings and schematics for major systems (by designer); control drawings, sequences of control (by contractor); and a table of all set points and implications when changing them, schedules, instructions for operation of each piece of equipment for emergencies, seasonal adjustment, startup and shutdown, instructions for energy savings operations and descriptions of the energy savings strategies in the facility, recommendations for recommissioning frequency by equipment type, energy tracking recommendations, and recommended standard trend logs with a brief description of what to look for in them (all by commissioning provider).

Warranty Period

- Coordinate and supervise required opposite season or deferred testing and deficiency corrections and provide the final testing documentation for the Commissioning Record and O&M manuals.
- Return to the site at 10 months into the 12 month warranty period and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have with operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.

SYSTEMS TO BE COMMISSIONED: The following systems and assemblies will be commissioned:

- Central building automation system
- Heating, ventilating and air conditioning systems
- Refrigeration systems
- Life safety systems (fire alarm, egress pressurization, fire protection)
- Electrical
- Lighting controls
- Emergency power generators and automatic transfer switching
- Uninterruptible power supply systems
- Building envelope including air barrier systems, enhanced thermal insulation and high performance glazing systems.